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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/674,706	09/30/2003	Charles H. Shoemaker	MSFT-2773/306494.01	4554
41505 7590 06/13/2007 WOODCOCK WASHBURN LLP (MICROSOFT CORPORATION) CIRA CENTRE, 12TH FLOOR 2929 ARCH STREET PHILADELPHIA, PA 19104-2891			EXAMINER LAZARO, DAVID R	
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

**Application No.**

10/674,706

**Applicant(s)**

SHOEMAKER ET AL.

**Examiner**

David Lazaro

**Art Unit**

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 30 September 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-33 is/are pending in the application.
- 4a) Of the above claim(s) 19-21 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-18 and 22-33 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 2/23/04.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Election/Restrictions***

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
  - I. Claims 1-18 and 22-33, drawn to enabling a custom remote computing media experience based on the remote media capabilities, classified in class 709, subclass 228.
  - II. Claims 19-21, drawn to a tool with a user interface for constructing a media capabilities token, classified in class 715, subclass 744.

The inventions are distinct, each from the other because of the following reasons:

2. Inventions I and II are related as subcombinations disclosed as usable together in a single combination. The subcombinations are distinct if they do not overlap in scope and are not obvious variants, and if it is shown that at least one subcombination is separately usable. In the instant case, subcombination II has separate utility such as allowing a user to construct a media capabilities token for describing the media capabilities of a remote device. See MPEP § 806.05(d).

The examiner has required restriction between subcombinations usable together. Where applicant elects a subcombination and claims thereto are subsequently found allowable, any claim(s) depending from or otherwise requiring all the limitations of the allowable subcombination will be examined for patentability in accordance with 37 CFR 1.104. See MPEP § 821.04(a). Applicant is advised that if any claim presented in a continuation or divisional application is anticipated by, or includes all the limitations of, a

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claim that is allowable in the present application, such claim may be subject to provisional statutory and/or nonstatutory double patenting rejections over the claims of the instant application.

3. Because these inventions are independent or distinct for the reasons given above and there would be a serious burden on the examiner if restriction is not required because the inventions have acquired a separate status in the art in view of their different classification, restriction for examination purposes as indicated is proper.

4. Because these inventions are independent or distinct for the reasons given above and there would be a serious burden on the examiner if restriction is not required because the inventions require a different field of search (see MPEP § 808.02), restriction for examination purposes as indicated is proper.

5. During a telephone conversation with Steven Rocci (30489) on 05/23/07 a provisional election was made without traverse to prosecute the invention of group I, claims 1-18 and 22-33. Affirmation of this election must be made by applicant in replying to this Office action. Claims 19-21 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

6. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim

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remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

***Information Disclosure Statement***

7. The information disclosure statement (IDS) submitted on 02/23/2004 has been considered by the examiner.

***Drawings***

8. The examiner accepts the drawings filed 09/30/2003.

***Specification***

9. The examiner accepts the amendment to the specification, filed with the 01/28/2004 preliminary amendment.

***Claim Objections***

10. Claim 29 objected to because of the following informalities: Claim 29 is claimed as a "computer readable medium". For overall clarity and consistency, this type of embodiment should indicate in the preamble the use of computer executable instructions in a manner similar to claim 23. Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

11. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

12. Claims 9 and 17 are rejected under 35 U.S.C. 112, first paragraph based on undue breadth. Both claims 9 and 17 are single means claims, i.e., where a means recitation does not appear in combination with another recited element of means. Specifically, Claim 9 only states "means for carrying out the method of claim 1", and Claim 17 only states "means for carrying out the method of claim 11". Single means claims are subject to an undue breadth rejection under 35 U.S.C. 112, first paragraph. See MPEP 2164.08(a) and *In re Hyatt*, 708 F.2d 712, 714-715, 218 USPQ 195, 197 (Fed. Cir. 1983) (A single means claim which covered every conceivable means for achieving the stated purpose was held nonenabling for the scope of the claim because the specification disclosed at most only those means known to the inventor.).

13. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

14. Claims 7, 23 and 29 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
15. Claim 7 recites the limitation "the remoting software of the remote device". There is insufficient antecedent basis for this limitation in the claim. Additionally note it is not

completely clear what applicant intends to be "included with the remoting software" in terms of the token or the tool.

16. Claim 23 is claimed as a "computer readable medium". The body of the claim includes improper use of means plus function language. In a manufacture invention, means plus function language is used to define the structure or materials that correspond to the recited function. The recited functions of claim 23 appear to be related to instructions or software code, not structures or materials. It is not clear as to what applicant intends to claim through the use of the means plus function language.

17. Claim 29 is claimed as a "computer readable medium". The body of the claim includes improper use of means plus function language. In a manufacture invention, means plus function language is used to define the structure or materials that correspond to the recited function. The recited functions of claim 29 appear to be related to instructions or software code, not structures or materials. It is not clear as to what applicant intends to claim through the use of the means plus function language.

***Claim Rejections - 35 USC § 101***

18. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

19. Claims 8, 10, 16, 18, 22 and 23-33 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

20. Claim 8 states "An application programming interface comprising computer executable modules having computer executable instructions for carrying out the

method of claim 1". This application programming interface appears to be a computer program, however, it is not embodied in a computer-readable media. Computer programs not embodied in computer-readable media are descriptive material per se and are not statutory because they are not capable of causing functional change in the computer. Computer programs not embodied in computer-readable media do not define any structural and functional interrelationships between the computer program and other claimed elements of a computer which permit the computer program's functionality to be realized. See MPEP 2106.01. For these reasons, Claim 8 is directed to non-statutory subject matter.

21. Claim 10 states "A modulated data signal carrying computer executable instructions for performing the method of claim 1". As discussed in the *Interim Guidelines for Examination of Patent Applications for Patent Subject Matter Eligibility* (the end of this section provides the relevant excerpts), the office's position is that signals, such as modulated data signals, do not fall within one of the four statutory classes of 35 U.S.C. 101. Therefore, claim 10 fails to fall within one of the four statutory categories and is ineligible for patent protection.

22. Claim 16 states "An application programming interface comprising computer executable modules having computer executable instructions for carrying out the method of claim 11". This application programming interface appears to be a computer program, however, it is not embodied in a computer-readable media. Computer



programs not embodied in computer-readable media are descriptive material per se and are not statutory because they are not capable of causing functional change in the computer. Computer programs not embodied in computer-readable media do not define any structural and functional interrelationships between the computer program and other claimed elements of a computer which permit the computer program's functionality to be realized. See MPEP 2106.01. For these reasons, Claim 16 is directed to non-statutory subject matter.

23. Claim 18 states "A modulated data signal carrying computer executable instructions for performing the method of claim 11". As discussed in the *Interim Guidelines for Examination of Patent Applications for Patent Subject Matter Eligibility* (the end of this section provides the relevant excerpts), the office's position is that signals, such as modulated data signals, do not fall within one of the four statutory classes of 35 U.S.C. 101. Therefore, claim 18 fails to fall within one of the four statutory categories and is ineligible for patent protection.

24. Claim 22 states "An extensible data structure", however, the data structure is not embodied in computer readable media. Data structures not claimed as embodied in computer-readable media are descriptive material per se and are not statutory because they are not capable of causing functional change in the computer. Data structures not claimed as embodied in computer-readable media do not define any structural and functional interrelationships between the data structure and other claimed aspects of the

invention which permit the data structure's functionality to be realized. See MPEP 2106.01. For these reasons, Claim 22 is directed to non-statutory subject matter.

25. Claim 23 states "A computer readable medium comprising computer executable modules having computer executable instructions." Page 15, paragraph [0054], of the specification states "*computer readable media may comprise computer storage media and communication media*" (emphasis added). The same paragraph further states, "*Communication media typically embodies computer readable instructions, data structures, program modules or other data in a modulated data signal such as a carrier wave or other transport mechanism*" (emphasis added). It is clear that the scope of the claimed computer readable medium is intended to cover communication media, which includes modulated data signals such as carrier waves. This is also the case for claims 24-28 which depend on claim 23.

26. As discussed in the *Interim Guidelines for Examination of Patent Applications for Patent Subject Matter Eligibility*, the office's position is that modulated data signals, such as carrier waves, do not fall within one of the four statutory classes of 35 U.S.C. 101. Therefore, based on the given evidence and the office's position, Claims 23-28 fail to fall within one of the four statutory categories and are ineligible for patent protection.

27. Claim 29 states "A computer readable medium". Page 15, paragraph [0054], of the specification states "*computer readable media may comprise computer storage media and communication media*" (emphasis added). The same paragraph further

states, "Communication media typically embodies computer readable instructions, data structures, program modules or other data in a modulated data signal such as a carrier wave or other transport mechanism" (emphasis added). It is clear that the scope of the claimed computer readable medium is intended to cover communication media, which includes modulated data signals such as carrier waves. This is also the case for claims 30-33 which depend on claim 29.

28. As discussed in the *Interim Guidelines for Examination of Patent Applications for Patent Subject Matter Eligibility*, the office's position is that modulated data signals, such as carrier waves, do not fall within one of the four statutory classes of 35 U.S.C. 101. Therefore, based on the given evidence and the office's position, Claims 29-33 fail to fall within one of the four statutory categories and are ineligible for patent protection.

29. For clarification of the office's position on signals, the following is from Annex IV, paragraph (c), pages 55-57, of the *Interim Guidelines for Examination of Patent Applications for Patent Subject Matter Eligibility*:

" Claims that recite nothing but the physical characteristics of a form of energy, such as a frequency, voltage, or the strength of a magnetic field, define energy or magnetism, per se, and as such are nonstatutory natural phenomena. O'Reilly, 56 U.S. (15 How.) at 112-14. Moreover, it does not appear that a claim reciting a signal encoded with functional descriptive material falls within any of the categories of patentable subject matter set forth in § 101. First, a claimed signal is clearly not a "process" under § 101 because it is not a series of steps. The other three § 101 classes of machine, compositions of matter and manufactures "relate to structural entities and can be grouped as 'product' claims in order to contrast them with process claims." 1 D. Chisum, Patents § 1.02

(1994). The three product classes have traditionally required physical structure or material. "The term machine includes every mechanical device or combination of mechanical device or combination of mechanical powers and devices to perform some function and produce a certain effect or result." *Corning v. Burden*, 56 U.S. (15 How.) 252, 267 (1854). A modern definition of machine would no doubt include electronic devices which perform functions. Indeed, devices such as flip-flops and computers are referred to in computer science as sequential machines. A claimed signal has no physical structure, does not itself perform any useful, concrete and tangible result and, thus, does not fit within the definition of a machine.

A "composition of matter" "covers all compositions of two or more substances and includes all composite articles, whether they be results of chemical union, or of mechanical mixture, or whether they be gases, fluids, powders or solids." *Shell Development Co. v. Watson*, 149 F. Supp. 279, 280, 113 USPQ 265, 266 (D.D.C. 1957), *aff'd*, 252 F.2d 861, 116 USPQ 428 (D.C. Cir. 1958). A claimed signal is not matter, but a form of energy, and therefore is not a composition of matter. The Supreme Court has read the term "manufacture" in accordance with its dictionary definition to mean "the production of articles for use from raw or prepared materials by giving to these materials new forms, qualities, properties, or combinations, whether by hand-labor or by machinery." *Diamond v. Chakrabarty*, 447 U.S. 303, 308, 206 USPQ 193, 196-97 (1980) (quoting *American Fruit Growers, Inc. v. Brogdex Co.*, 283 U.S. 1, 11, 8 USPQ 131, 133 (1931), which, in turn, quotes the Century Dictionary). Other courts have applied similar definitions. See *American Disappearing Bed Co. v. Arnaelsteen*, 182 F. 324, 325 (9th Cir. 1910), *cert. denied*, 220 U.S. 622 (1911). These definitions require physical substance, which a claimed signal does not have. Congress can be presumed to be aware of an administrative or judicial interpretation of a statute and to adopt that interpretation when it re-enacts a statute without change. *Lorillard v. Pons*, 434 U.S. 575, 580 (1978). Thus, Congress must be presumed to have been aware of the interpretation of

manufacture in American Fruit Growers when it passed the 1952 Patent Act. A manufacture is also defined as the residual class of product. 1 Chisum, § 1.02[3] (citing W. Robinson, The Law of Patents for Useful Inventions 270 (1890)).

A product is a tangible physical article or object, some form of matter, which a signal is not. That the other two product classes, machine and composition of matter, require physical matter is evidence that a manufacture was also intended to require physical matter. A signal, a form of energy, does not fall within either of the two definitions of manufacture. Thus, a signal does not fall within one of the four statutory classes of § 101. On the other hand, from a technological standpoint, a signal encoded with functional descriptive material is similar to a computer-readable memory encoded with functional descriptive material, in that they both create a functional interrelationship with a computer. In other words, a computer is able to execute the encoded functions, regardless of whether the format is a disk or a signal. These interim guidelines propose that such signal claims are ineligible for patent protection because they do not fall within any of the four statutory classes of § 101. Public comment is sought for further evaluation of this question."

### ***Claim Rejections - 35 USC § 102***

30. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

31. Claims 1, 2, 6-10, 22-24 and 28 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent Application Publication 2002/0109718 by Mansour et al. (Mansour).

32. With respect to claim 1, Mansour teaches a method for enabling a custom remote computing media experience as between a host device to a remote device, comprising:

instantiating a remote session with the host device according to a remote session protocol (Page 3 [0022], and page 10 [0113]-[0116]: terminal session, such as remote desktop session, established. Note any suitable protocol can be used - Page 3 [0050], page 7 [0082])

automatically transmitting at least one media capabilities token based upon the media capabilities of the remote device to the host device (Page 13, [0150]: upon connection, client device sends its device capabilities to the UI server (host device) in any format. Device capabilities, which can be any number of parameters, specifications, functions, or limitations, include media capabilities - Page 10 [0097]-[0112]); and

in response to said transmitting, receiving at the remote device a custom remote media experience user interface tailored to the remote device (Page 6 [0071], page 9 [0093], Page 14 [0160]: client device receives a custom user interface based on the received capabilities of the device).

33. With respect to claim 2, Mansour further teaches in response to said connecting, automatically generating said at least one media capabilities token based upon the media capabilities of the remote device (Page 13, [0150]: upon connection, client device automatically sends its device capabilities to the UI server (host device)).

34. With respect to claim 6, Mansour further teaches wherein said instantiating a remote session includes establishing a remote session between a shell of the host device having remote control capabilities and the remote device (Page 8 [0086]: UI server application acts as a shell).

35. With respect to claim 7, Mansour further teaches wherein said at least one media capabilities token is generated by a third party tool, and included with the remoting software of the remote device (Page 10 [0118]: client application responsible for generating the media capabilities can be developed for specific UI server or ported to many platforms by a variety of manufactures).

36. Claim 8 is rejected based on the same logic presented in the rejection of Claim 1 above. Also note Pages 3-4 [0050]-[0051] and Page 20 [0222]-[0223].

37. Claim 9 is rejected based on the same logic presented in the rejection of Claim 1 above. Also note Pages 3-4 [0050]-[0051] and Page 20 [0222]-[0223].

38. Claim 10 is rejected based on the same logic presented in the rejection of Claim 1 above. Also note Pages 3-4 [0050]-[0051] and Page 20 [0222]-[0223].

39. With respect to claim 22, Mansour teaches an extensible data structure for defining media capabilities of a remote device for purposes of a remote media experience provided to the remote device from a host device, comprising:

at least one token, wherein each token defines a media capability of the remote device for purposes of the remote media experience (Page 10 [0097]-[0112], Page 13, [0150] and Page 14 [0160]: Device capabilities, which can be any number of

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parameters, specifications, functions, or limitations, include media capabilities.

Capabilities provided to host device for purposes of remote media experience.).

40. With respect to claim 23, Mansour teaches a computer readable medium comprising computer executable modules having computer executable instructions for enabling a custom remote computing media experience as between a host device to a remote device, comprising:

means for instantiating a remote session with the host device according to a remote session protocol (Page 3 [0022], and page 10 [0113]-[0116]: terminal session, such as remote desktop session, established. Note any suitable protocol can be used - Page 3 [0050], page 7 [0082])

means for automatically transmitting at least one media capabilities token based upon the media capabilities of the remote device to the host device (Page 13, [0150]: upon connection, client device sends its device capabilities to the UI server (host device) in any format. Device capabilities, which can be any number of parameters, specifications, functions, or limitations, include media capabilities - Page 10 [0097]-[0112]); and

means for receiving at the remote device a custom remote media experience user interface tailored to the remote device in response to said transmitting (Page 6 [0071], page 9 [0093], Page 14 [0160]: client device receives a custom user interface based on the received capabilities of the device).

41. With respect to claim 24, Mansour further teaches means for automatically generating said at least one media capabilities token based upon the media capabilities



of the remote device in response to said connecting (Page 13, [0150]: upon connection, client device automatically sends its device capabilities to the UI server (host device)).

42. With respect to claim 28, Mansour further teaches wherein said means for instantiating a remote session includes means for establishing a remote session between a shell of the host device having remote control capabilities and the remote device (Page 8 [0086]: UI server application acts as a shell).

### ***Claim Rejections - 35 USC § 103***

43. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

44. Claims 3, 4, 11, 12, 14-18, 25, 26, 29, 30, 32 and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent Application Publication 2002/0109718 by Mansour et al. (Mansour) in view of "Remote Desktop Protocol (RDP) Features and Performance" Microsoft white paper from June 2000 (hereinafter RDP White paper).

45. With respect to claim 3, Mansour teaches all the limitations of claim 1, and further teaches the remote session can be a terminal server session (Page 10 [0115]). Mansour also teaches that any suitable protocol can be used for communication between the client device and UI server (Page 3 [0050], page 7 [0082]).

Mansour does not explicitly disclose the remote session protocol is remote desktop protocol. The RDP white paper teaches that remote desktop protocol allows for remote display and input capabilities over a network for applications running on a server and is related to terminal server services (Page 4, first paragraph of overview).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to take the method disclosed by Mansour and modify it as indicated by RDP White paper such that it further comprises said remote session protocol is remote desktop protocol. One would be motivated to have this, as Mansour explicitly suggests using any suitable protocol (In Mansour: Page 3 [0050], page 7 [0082]). The remote application abilities of remote desktop protocol would particularly suit the remote desktop functionality disclosed in Mansour (In Mansour: page 10 [0113]-[0116]).

46. With respect to claim 4, Mansour teaches all the limitations of claim 1, and further teaches disconnecting said remote device from said remote session, and upon reconnection to said remote session, automatically synchronizing the state of the client device with the UI server (Page 14 [0153]-[0154] and [0157]-[0158]).

Mansour does not explicitly disclose automatically regenerating said at least one media capabilities token based upon the media capabilities of the remote device at the time of reconnection. The RDP White paper teaches that a device may disconnect and reconnect from a session (Page 7 - Roaming Disconnect). Upon reconnecting, a media capability at the time of the reconnection is automatically determined and utilized in the reconnected session (Page 7 - Roaming Disconnect - different screen resolution upon reconnect).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to take the method disclosed by Mansour and modify it as indicated by the RDP White paper such that it further comprises upon reconnection to said remote session, automatically regenerating said at least one media capabilities token based upon the media capabilities of the remote device at the time of reconnection. One would be motivated to have this, as there is need for ensuring that the client device and UI server are updated to reflect any changes that occurred during disconnection (In Mansour: Page 14 [0153]).

47. With respect to claim 11, Mansour teaches a method for enabling a custom remote computing media experience as between a host device to a remote device, comprising:

initializing a remote session of the host device (Page 3 [0022], and page 10 [0113]-[0116] : terminal session, such as remote desktop session, established. Note any suitable protocol can be used - Page 3 [0050], page 7 [0082]);

opening a virtual connection (Page 5 [0064]: virtual application client);

monitoring the virtual connection for the remote device to establish a connection (Page 13, [0150]: UI server waits for remote device to connect);

upon the remote device connecting via the virtual connection, receiving at least one media capabilities token for the remote device (Page 13, [0150]: upon connection, client device sends its device capabilities to the UI server (host device) in any format. Device capabilities, which can be any number of parameters, specifications, functions, or limitations, include media capabilities - Page 10 [0097]-[0112]); and

transmitting a custom media experience user interface to the remote device based upon said at least one media capabilities token (Page 6 [0071], page 9 [0093], Page 14 [0160]: client device receives a custom user interface based on the received capabilities of the device).

Mansour does not explicitly disclose initializing a remote desktop protocol session and the use of virtual channels for the connection. The RDP White paper teaches that remote desktop protocol allows for remote display and input capabilities over a network for applications running on a server in relation to remote sessions (Page 4, first paragraph of overview). Remote desktop protocol employs the use of virtual channel architecture that allows for separate virtual channels for carrying device communication and presentation data (Page 6 - Basic Architecture, and Page 7 - Virtual Channels).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to take the method disclosed by Mansour and modify it as indicated by RDP White paper such that it further comprises initializing a remote desktop protocol session of the host device; opening a virtual channel; monitoring the virtual channel for the remote device to establish a connection; upon the remote device connecting via the virtual channel, receiving at least one media capabilities token for the remote device. One would be motivated to have this, as Mansour explicitly suggests using any suitable protocol and known techniques for the transmission, reception and exchange of information (In Mansour: Page 3 [0050], page 7 [0082]). The remote application abilities

of remote desktop protocol would particularly suit the remote desktop functionality disclosed in Mansour (In Mansour: page 10 [0113]-[0116]).

48. With respect to claim 12, Mansour further teaches wherein if no valid capabilities tokens are received within a timeout period, a generic set of device capabilities is assumed and said transmitting includes transmitting a generic media experience user interface to the remote device (In Mansour: Page 14 [0160]: default view is selected when there is not client action).

49. With respect to claim 14, Mansour further teaches wherein said connection includes a connection to a shell of the host device having remote control capabilities (In Mansour: Page 8 [0086]: UI server application acts as a shell).

50. With respect to claim 15, Mansour further teaches wherein said remote desktop protocol session is a Terminal Server session (In Mansour: Page 10 [0115]).

51. Claim 16 is rejected based on the same logic presented in the rejection of Claim 11 above. Also note in Mansour, Pages 3-4 [0050]-[0051] and Page 20 [0222]-[0223].

52. Claim 17 is rejected based on the same logic presented in the rejection of Claim 11 above. Also note in Mansour, Pages 3-4 [0050]-[0051] and Page 20 [0222]-[0223].

53. Claim 18 is rejected based on the same logic presented in the rejection of Claim 11 above. Also note in Mansour, Pages 3-4 [0050]-[0051] and Page 20 [0222]-[0223].

54. With respect to claim 25, Mansour teaches all the limitations of claim 23, and further teaches the remote session can be a terminal server session (Page 10 [0115]). Mansour also teaches that any suitable protocol can be used for communication between the client device and UI server (Page 3 [0050], page 7 [0082]).

Mansour does not explicitly disclose the remote session protocol is remote desktop protocol. The RDP White paper teaches that remote desktop protocol allows for remote display and input capabilities over a network for applications running on a server and is related to terminal server services (Page 4, first paragraph of overview).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to take the computer readable medium disclosed by Mansour and modify it as indicated by RDP White paper such that it further comprises said remote session protocol is remote desktop protocol. One would be motivated to have this, as Mansour explicitly suggests using any suitable protocol (In Mansour: Page 3 [0050], page 7 [0082]). The remote application abilities of remote desktop protocol would particularly suit the remote desktop functionality disclosed in Mansour (In Mansour: page 10 [0113]-[0116]).

55. With respect to claim 26, Mansour teaches all the limitations of claim 23, and further teaches means for disconnecting said remote device from said remote session, and upon reconnection to said remote session, automatically synchronizing the state of the client device with the UI server (Page 14 [0153]-[0154] and [0157]-[0158]).

Mansour does not explicitly disclose means for automatically regenerating said at least one media capabilities token based upon the media capabilities of the remote device at the time of reconnection. The RDP White paper teaches that a device may disconnect and reconnect from a session (Page 7 - Roaming Disconnect). Upon reconnecting, a media capability at the time of the reconnection is automatically

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determined and utilized in the reconnected session (Page 7 - Roaming Disconnect - different screen resolution upon reconnect).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to take the computer readable medium disclosed by Mansour and modify it as indicated by the RDP White paper such that it further comprises upon reconnection to said remote session, means for automatically regenerating said at least one media capabilities token based upon the media capabilities of the remote device at the time of reconnection. One would be motivated to have this, as there is need for ensuring that the client device and UI server are updated to reflect any changes that occurred during disconnection (In Mansour: Page 14 [0153]).

56. With respect to claim 29, Mansour teaches a compute readable medium for enabling a custom remote computing media experience as between a host device to a remote device, comprising:

means for initializing a remote session of the host device (Page 3 [0022], and page 10 [0113]-[0116] : terminal session, such as remote desktop session, established. Note any suitable protocol can be used - Page 3 [0050], page 7 [0082]);

means for opening a virtual connection (Page 5 [0064]: virtual application client);

means for monitoring the virtual connection for the remote device to establish a connection (Page 13, [0150]: UI server waits for remote device to connect);

means for receiving at least one media capabilities token for the remote device upon the remote device connecting via the virtual connection (Page 13, [0150]: upon connection, client device sends its device capabilities to the UI server (host device) in

any format. Device capabilities, which can be any number of parameters, specifications, functions, or limitations, include media capabilities - Page 10 [0097]-[0112]); and

means for transmitting a custom media experience user interface to the remote device based upon said at least one media capabilities token (Page 6 [0071], page 9 [0093], Page 14 [0160]: client device receives a custom user interface based on the received capabilities of the device).

Mansour does not explicitly disclose initializing a remote desktop protocol session and the use of virtual channels for the connection. The RDP White paper teaches that remote desktop protocol allows for remote display and input capabilities over a network for applications running on a server in relation to remote sessions (Page 4, first paragraph of overview). Remote desktop protocol employs the use of virtual channel architecture that allows for separate virtual channels for carrying device communication and presentation data (Page 6 - Basic Architecture, and Page 7 - Virtual Channels).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to take the computer readable medium disclosed by Mansour and modify it as indicated by RDP White paper such that it further comprises means for initializing a remote desktop protocol session of the host device; opening a virtual channel; means for monitoring the virtual channel for the remote device to establish a connection; means for receiving at least one media capabilities token for the remote device upon the remote device connecting via the virtual channel. One would be



motivated to have this, as Mansour explicitly suggests using any suitable protocol and known techniques for the transmission, reception and exchange of information (In Mansour: Page 3 [0050], page 7 [0082]). The remote application abilities of remote desktop protocol would particularly suit the remote desktop functionality disclosed in Mansour (In Mansour: page 10 [0113]-[0116]).

57. With respect to claim 30, Mansour further teaches wherein if no valid capabilities tokens are received within a timeout period, a generic set of device capabilities is assumed and said transmitting includes means for transmitting a generic media experience user interface to the remote device (In Mansour: Page 14 [0160]: default view is selected when there is not client action).

58. With respect to claim 32, Mansour further teaches wherein said connection includes a connection to a shell of the host device having remote control capabilities (In Mansour: Page 8 [0086]: UI server application acts as a shell).

59. With respect to claim 33, Mansour further teaches wherein said remote desktop protocol session is a Terminal Server session (In Mansour: Page 10 [0115]).

60. Claims 5 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent Application Publication 2002/0109718 by Mansour et al. (Mansour) in view of U.S. Patent Application Publication 2002/0075301 by Basso et al. (Basso).

61. With respect to claim 5, Mansour teaches all the limitations of claim 1 and further teaches said at least one media capabilities token can be in any format (Page 13, [0150]).

Mansour does not explicitly disclose the at least one media capabilities token is a string. Basso teaches media capabilities can be expressed in string format (Page 2-4 [0024]-[0038]: particularly note Table 1 in [0024] which denotes various example media capabilities followed by subsequent tables showing example values for the media capabilities. The fields and values are in a numerical string format).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to take the method disclosed by Monsour and modify it as indicated by Basso such that it further comprises said at least one media capabilities token is a string. One would be motivated to have this as Mansour explicitly suggests any format can be used (In Mansour: Page 13 [0150]).

62. With respect to claim 27, Mansour teaches all the limitations of claim 23 and further teaches said at least one media capabilities token can be in any format (Page 13, [0150]).

Mansour does not explicitly disclose the at least one media capabilities token is a string. Basso teaches media capabilities can be expressed in string format (Page 2-4 [0024]-[0038]: particularly note Table 1 in [0024] which denotes various example media capabilities followed by subsequent tables showing example values for the media capabilities. The fields and values are in a numerical string format).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to take the computer readable medium disclosed by Monsour and modify it as indicated by Basso such that it further comprises said at least one media

capabilities token is a string. One would be motivated to have this as Mansour explicitly suggests any format can be used (In Mansour: Page 13 [0150]).

63. Claims 13 and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mansour in view of RDP White paper as applied to claims 11 and 23 above, and further in view of U.S. Patent 6,970,920 by Poirier et al. (Poirier).

64. With respect to claim 13, Mansour in view of RDP White paper teaches all the limitations of claim 11, but does not explicitly disclose said monitoring includes monitoring the virtual channel until a timeout period completes.

Poirier teaches monitoring a connection channel until a timeout period completes (Col. 10 lines 5-18).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to take the method disclosed by Mansour in view of RDP White paper and modify it as indicated by Poirier such that it further comprises said monitoring includes monitoring the virtual channel until a timeout period completes. One would be motivated to have this, as it provides a more efficient use of network resources (In Poirier: Col. 10 lines 5-13).

65. With respect to claim 31, Mansour in view of RDP White paper teaches all the limitations of claim 23, but does not explicitly disclose said means for monitoring includes monitoring the virtual channel until a timeout period completes.

Poirier teaches monitoring a connection channel until a timeout period completes (Col. 10 lines 5-18).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to take the computer readable medium disclosed by Mansour in view of RDP White paper and modify it as indicated by Poirier such that it further comprises said means for monitoring includes monitoring the virtual channel until a timeout period completes. One would be motivated to have this, as it provides a more efficient use of network resources (In Poirier: Col. 10 lines 5-13).

### ***Conclusion***

66. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

67. U.S. patent 6,509,913 by Martin, Jr. et al. "Configurable man-machine interface" January 21, 2003. Discloses customization of user interfaces by network operators.

68. U.S. Patent 6,915,486 by Li et al. "Customizing a graphical user interface of a host application" July 5, 2005. Discloses customizing a graphical user interface of an application.

69. U.S. Patent 7,027,881 by Yumoto et al. "Remote control system, electronic device, and program" April 11, 2006. Discloses a control device exchanging ability information to a device to be controlled. In response, the device to be controlled provides data to the control device such that the control device can create a GUI.

70. U.S. Patent 7,136,909 by Balasuriya "Multimodal communication method and apparatus with multimodal profile" November 14, 2006. Disclose the use of a

multimodal profile for customizing an interface based on preferences related to device capabilities.

71. U.S. patent Application Publication 2003/0046401 by Abbott et al. "Dynamically determining [sic] appropriate computer user interfaces" March 6, 2003. Disclose dynamically determining an appropriate user interface to a user based on the user's context.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David Lazaro whose telephone number is 571-272-3986. The examiner can normally be reached on 8:30-5:00 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Saleh Najjar can be reached on 571-272-4006. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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A handwritten signature in black ink, appearing to read 'David Lazaro', with a long horizontal flourish extending to the right.

David Lazaro  
June 8, 2007